



PRESS RELEASE

ENEL AND NEWCLEO SIGN PARTNERSHIP TO COOPERATE ON GENERATION IV NUCLEAR TECHNOLOGY

Rome, March 13th, 2023 – The Enel Group and clean nuclear technology company *newcleo* signed a Cooperation Agreement under which they will pursue the opportunity to work together on *newcleo*'s Generation IV nuclear technology projects, which aim to provide a safe and stable power source, as well as significantly reduce existing volumes of radioactive waste to be used as reactor fuel.

In line with the agreement, Enel will collaborate with *newcleo* on projects related to this advanced nuclear technology, providing specialized expertise through sharing a number of the company's qualified personnel.

In view of the support provided, *newcleo* has committed to securing an option for Enel as first investor in its first nuclear power plant, which it will build outside Italy.

"Innovation is crucial to the development of technologies that can secure clean, reliable, affordable energy that is as independent as possible from geopolitical factors. For this reason, we continue to explore any area of the energy spectrum," said **Francesco Starace**, CEO of Enel. *"This collaboration with newcleo is the latest example of our tireless search for the best companies to join us on our journey towards a clean future and we look forward to supporting newcleo in its challenging but promising roadmap to provide zero-emission electricity in a safe, affordable and sustainable way."*

"I am delighted that Enel has chosen to partner with newcleo. They are showing great foresight in being one of the first energy companies to appreciate and support our sustainable strategy and its impact on our collective future," said **Stefano Buono**, CEO of *newcleo*. *"newcleo's fast reactor technology is the necessary step in the nuclear industry to enable multiple recycling of already extracted uranium and a massive reduction in nuclear waste. In addition, the use of lead opens the possibility to safer and cheaper reactor operating."*

Enel is a leader in sustainable generation also thanks to its relentless work in developing advanced and innovative technologies, including through collaborations activated with startups from all over the world, taking advantage of a pervasive network of Enel Innovation Hubs and laboratories active in three continents.

In addition, the Group has a strong expertise in nuclear technology and currently has over 3.3 GW of nuclear capacity in Spain, as well as detaining a stake of around 33% in Slovak company Slovenské elektrárne which recently connected to the grid the first of two turbine generators of the Mochovce Nuclear Power Plant Unit 3, the second newly built nuclear power plant to be connected to the European network in 15 years.



newcleo works to deliver innovative reactors, which significantly reduce existing volumes of radioactive waste and plutonium, as well as stopping the need for further uranium mining for the long-term benefit of communities and the environment.

The first step of *newcleo*'s delivery roadmap will be the design and construction of the first-of-a-kind Mini 30MWe LFR (Lead Fast Reactor) to be deployed in France by 2030, rapidly followed by a 200 MWe commercial unit in the UK. At the same time, *newcleo* will directly invest in a MOX (Mixed uranium / plutonium Oxide, manufactured from existing nuclear waste) plant to fuel its reactors.

About Enel

Enel is a multinational power company and a leading integrated player in the global power and renewables markets. At global level, it is the largest renewable private player, the foremost network operator by number of end users and the biggest retail operator by customer base. The Group is the worldwide demand response leader and the largest European utility by ordinary EBITDA ⁽¹⁾.

Enel is present in 30 countries worldwide, producing energy with more than 90 GW of total capacity.

Enel Grids, the Group's global business line dedicated to the management of the electricity distribution service worldwide, delivers electricity through a network of more than 2 million kilometers to approximately 73 million end users. The Group brings energy to around 67 million homes and businesses. Enel's renewables arm Enel Green Power has a total capacity of more than 59 GW and a generation mix that includes wind, solar, geothermal, and hydroelectric power, as well as energy storage facilities, installed in Europe, the Americas, Africa, Asia, and Oceania. Enel X Global Retail, Enel's global advanced energy services business line, has a total capacity of around 8.5 GW of demand response managed globally and has installed around 75 MW of behind-the-meter storage capacity. In addition, Enel X Way is the Group's company fully dedicated to electric mobility, managing nearly 430,000 public and private EV charging points worldwide, both directly and through interoperability agreements.

⁽¹⁾ Enel's leadership in the different categories is defined by comparison with competitors' FY 2021 data. Publicly owned operators are not included.

About *newcleo*

Privately funded and headquartered in London, *newcleo* was launched in 2021 – and since raised a total of EUR 400m – to be an innovator in the field of nuclear energy. Its mission is to generate safe, clean, economic and practically inexhaustible energy for the world, through a radically innovative combination of existing, accessible technologies.

With visionary co-founders, *newcleo* capitalises on thirty years of R&D activity in metal-cooled fast reactors and liquid-lead cooling systems, and its senior management and advisory team can boast years in hands-on experience.

newcleo's technology, mostly comprising a novel approach to already qualified solutions, addresses equally well the three challenges affecting the nuclear industry to date: waste, safety and cost.

- **Waste:** fast reactors are capable of efficient “burning” (i.e., fission) of depleted uranium, plutonium and Minor Actinides. When operated with MOX fuel generated from reprocessed nuclear waste, *newcleo*'s reactors not only ensure sustainability by closing the fuel cycle, but can also boost energy independence.
- **Safety:** lead-cooled reactors operate at atmospheric pressure. The properties of lead (thermal capacity and conductivity, boiling point, chemically inert, low neutron activation, shielding properties) together with *newcleo*'s passive safety systems ensure very high levels of safety
- **Cost:** *newcleo*'s reactor design has been optimised over the last 20 years leading to the concept of an ultra-compact and transportable 200MWe module with improvements in energy density compared to other technologies. Costs are kept low by means of simplicity, compactness, modularity, atmospheric pressure operation and elevated output temperature.



newcleo is also working to significantly invest in MOX fuel manufacturing in developed countries, extracting energy from the current nuclear industry by-products.

newcleo is ready to develop a new, sustainable, and completely safe way of generating nuclear energy that will help humanity reach zero emissions, and mitigate of global warming.

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